CLAIMS

What is claimed is:

1. A composition comprising an isolated collection of mutant nematodes altered to reduce or increase sensitivity to desiccation stress.

2. The composition of Claim 1, wherein said mutant nematodes comprise a knock-out osmotic stress resistant (OSR-1) mutation.

3. The composition of Claim 1, wherein said collection of mutant nematodes is configured for administration to a host.

4. The composition of Claim 3, wherein said host comprises a plant.

5. The composition of Claim 3, wherein said host comprises an animal.

6. A method for treating a host organism, comprising the steps of exposing said host to a collection of isolated mutant nematodes altered in sensitivity to desiccation stress as compared to non-mutant nematodes.

7. The method of Claim 6, wherein said host is a plant.

8. The method of Claim 6, wherein said host is an animal.

9. The method of Claim 6, wherein said mutant nematodes are altered to reduce sensitivity to desiccation stress.

10. The method of Claim 9, wherein said nematodes comprise Steinermatidea or Heterorahbtidea nematodes.

11. The method of Claim 6, wherein said mutant nematodes are altered to increase sensitivity to desiccation stress.

12. A composition comprising;

a) a composition comprising small interfering RNA duplex, or vectors encoding said small interfering RNA duplex, configured to inhibit expression of OSR-1 protein, and

b) a nucleic acid transfecting agent.